1950] PAPENFUSS: PROPOSED GENERA CONSERVANDA

Because the operation of botanical nomenclatural rules tends to commemorate those who contribute to this field of botany, Dr. Foxworthy will be remembered longer for his work in systematic botany, chiefly in the Dipterocarpaceae, than for his more really and immediately important work on the sources, structure and uses of wood.

His friends, throughout the World, will cherish his memory as that of a perfect gentleman.—E. B. COPELAND, Department of Botany, University of California, Berkeley.

GENERIC NAMES OF ALGAE PROPOSED FOR CONSERVATION. II.

GEORGE F. PAPENFUSS¹

In a previous article in this journal, the writer (Papenfuss, 1947) drew attention to several well-established generic names of algae which appeared to be illegitimate and hence in need of conservation. Further work on the marine algae has brought to light a few additional names which might profitably be conserved. They are hereby proposed for conservation.

Chlorophycophyta

PERCURSARIA Bory (Ulvaceae), Dict. class. hist. nat. 4: 393. 1823; and 13: 206. 1828.

versus

Percursaria Bonnemaison, Jour. Phys., Chimie, Hist. Nat. et Arts 94: 178. 1822.

Tetranema Areschoug. Phyc. scand., sect. posterior 418, pl. 2, fig. A. 1850. (Not Tetranema Bentham, 1843.)

Diplonema Kjellman, Alg. Arctic Sea 302. 1883. (Not Diplonema G. Don, 1838, nor Diplonema De Notaris, 1846.)

Type species: Percursaria percursa (Ag.) Bory (1828, p. 206). Although Percursaria Bory is a monotypic genus, it has a wide distribution and has for a long time been known by this name. A few authors have regarded the genus as synonymous with Enteromorpha Link (1820) but the non-tubular thallus, with its two longitudinal rows of cells, clearly distinguishes Percursaria from Enteromorpha. The illegitimatizing homonym Percursaria Bonnemaison, which is based on Scytonema compactum, is synonymous with the schizophycean genus Dichothrix Zanardini (1858).

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¹ The greater part of the work connected with the preparation of this article was done while the writer held a Guggenheim Fellowship.

MADROÑO

Rhodophycophyta

PRIONITIS J. Agardh (Grateloupiaceae), Sp. alg. 2(1): 185. 1851.

versus

Prionitis Adanson, Fam. pl. 2: 499. 1763.

Zarnardinula De Toni fil., Not. nomencl. alg. VII, p. [6]. 1936. Type species: Prionitis lanceolata (Harvey) Harvey (1853; see also Schmitz 1889, p. 452 = Prionitis ligulata J. Agardh, 1851).

As has been pointed out by J. De Toni (1936), the generic name *Prionitis* J. Agardh (1851) is a later homonym of *Prionitis* Adanson (1763), a genus of flowering plants. J. De Toni accordingly gave the name *Zanardinula* to the genus of algae and this epithet was subsequently adopted by Papenfuss (1944), Dawson (1945, 1946) and Doty (1947). Inasmuch as the name *Falcaria* Host (1827) has been conserved against *Prionitis* Adanson and since *Prionitis* J. Agardh has been the accepted name of a genus of algae for almost a century, it is suggested that this name be considered for conservation.

BINDERA Harvey (Rhodymeniaceae), Phyc. austr. 2, pl. 111 and accompanying text. 1859.

versus

Bindera Rafinesque, New fl. Amer. 4: 71. 1836 [1838].

Bindera J. Agardh, Linnaea 15: 36. 1841.

Webervanbossea De Toni fil., Not. nomencl. alg. VII, p. [5]. 1936.

Type species: Bindera splachnoides Harvey, op. cit., pl. 111, figs. 1-2 (cf. Kylin, 1931, p. 5).

In 1936 J. De Toni proposed the name Webervanbossea as a substitute for Bindera Harvey (1859) because the latter epithet was illegitimatized by both Bindera Rafinesque (1838), a genus of flowering plants, and Bindera J. Agardh (1841), a genus of red algae. Since Bindera Rafinesque is a synonym of Aster Linnaeus (1753) and Bindera J. Agardh a synonym of Spyridia Harvey (in Hooker, 1833), there is no obstacle to the retention of Bindera Harvey if the name were legitimatized through conservation.

Although Bindera at present includes only three species (B. splachnoides Harvey, B. kaliformis J. Agardh and B. Levringii Lindauer ined.), the genus is of considerable morphological interest. Moreover, it commemorates the name of a man who did much for the furtherance of our knowledge of algae, and of whom Harvey (loc. cit.) wrote: ". . . I gladly take this opportunity of paying an old debt, by inscribing it with the name of Dr. [Nicholas] Binder, of Hamburg, an enthusiastic admirer of Algae, the possessor of a noble collection [elsewhere referred to by Harvey as 'one of the finest collections of Algae in Europe'], which he freely opens for the use of all interested in this branch of botany, and to whom I am personally under obligation for repeated contributions of valuable specimens."

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CHAUVINIA Harvey (Delesseriaceae), Phyc. austr. 4, pl. 240 and accompanying text. 1862.

versus

Chauvinia Bory, Cryptogamia, in L. I. Duperrey, Voyage autour du monde, ..., la Coquille, ..., 2 (1): p. 204. 1829.

Vinassaella De Toni fil., Not. nomencl. alg. VII, p. [5], 1936. Type species: Chauvinia coriifolia (Harv.) Harv. (cf. Kylin, 1924, pp. 12-13).

When Harvey described his genus Chauvinia in 1862, he credited it with three species, viz., C. imbricata (Aresch.) Harv. (= Delesseria imbricata Areschoug), C. Hookeri (Lyall) Harv. (= Delesseria Hookeri Lyall) and C. coriifolia (Harv.) Harv. (= Delesseria coriifolia Harvey). In the course of time, Chauvinia imbricata was removed by J. Agardh (1898, p. 174) to his newly established genus Phitymophora, where it serves as the lectotype of the genus (cf. Kylin, 1924, p. 13) and C. Hookeri was made by Kylin (1929) the type of a new (and at that time monotypic) genus, Laingia. Through the principle of residue, Chauvinia coriifolia thus came to serve as the type of Chauvinia, despite the fact that Schmitz in 1889 had designated C. imbricata as the lectotype of the genus.

Although J. Agardh (1898, p. 148) and Kylin (1924) seem to have overlooked the fact that Schmitz had designated *Chauvinia imbricata* as the lectotype of *Chauvinia*, there is considerable justification for their selection of *C. coriifolia* as the type of this genus. *Chauvinia* was, to be sure, established by Harvey in connection with his account of *C. imbricata* in 1862, but he had already, in 1860, in connection with his account of *Delesseria coriifolia*, come to realize the desirability of creating a separate genus for this species and *D. Hookeri*. To avoid the substitution of a new name for *Phitymophora*, it thus seems best to follow J. Agardh and Kylin in their choice of *Chauvinia coriifolia* as the type of *Chauvinia*. When J. De Toni (1936) substituted the name *Vinassaella* for *Chauvinia*, he also accepted *C. coriifolia* as the type of the genus.

Inasmuch as *Chauvinia* Bory (1829) is synonymous with *Caulerpa* Lamouroux (1809), there appears to be no obstacle to the continued use of *Chauvinia* Harvey and it is proposed that this name be considered for conservation. In addition to *C. coriifolia, Chauvinia* at present includes a species recently described by Børgesen (1945) under the name *C. Jadinii.*

POLYNEURA Kylin (Delesseriaceae), Delesseriaceen 33. 1924. versus

Polyneura J. Agardh, Anal. alg., contin. 5: 58-60. 1899.

Type species: Polyneura Hilliae (Grev.) Kylin (loc. cit.).

The genus *Polyneura* Kylin (1924) has received general recognition, and it would be advantageous to conserve this name against the earlier homonym of *Polyneura J.* Agardh (1899).

This monotypic genus of J. Agardh was established on a species, P. californica J. Agardh, which Setchell and Gardner (1903, p. 304) have found to be representative of Erythrophyllum J. Agardh (1872), viz., E. delesserioides J. Agardh. The existence of the name Polyneura J. Agardh was brought to my attention by Mr. David Erskine of the University of California and I thank him for kindly agreeing to the inclusion of Polyneura Kylin in the present list of names proposed for conservation.

MARTENSIA Hering (Delesseriaceae), Ann. and Mag. Nat. Hist. 8(49):92. 1841.

versus

Martensia Giseke, Prael. 207, 227, 249. 1792.

Hemitrema R. Brown, in S. L. Endlicher, Mant. bot. sistens gen. pl., suppl. 3: 50. 1843.

Mesotrema J. Agardh, Öfvers. K. Sv. Vetensk.-Akad. Förhandl. 11: 110. 1854.

Capraella De Toni fil., Not. nomencl. alg. VII, p. [3]. 1936.

Type species : Martensia elegans Hering.

J. De Toni in 1936 drew attention to the fact that the algal genus Martensia Hering (1841) was illegitimatized by Martensia Giseke (1792), a genus of flowering plants, and he accordingly proposed the name Capraella for the genus of algae. Papenfuss (1942) pointed out, however, that the name Mesotrema J. Agardh (1854) was available for the genus of algae. Hemitrema R. Brown (1843) is illegitimate since it is based on isotype material of the type species of Martensia Hering, M. elegans, and was nomenclaturally superfluous when published [Int. Rules Bot. Nomencl., Sec. 12, Art. 60(1)].

In view of the fact that Martensia Giseke is a synonym of Alpinia Linnaeus (1753) and since Martensia Hering, named in honor of Dr. Georg Matthias von Martens, the author of "Die Tange der preussische Expedition nach Ost-Asien", has for more than a century been the accepted name for a very remarkable genus of reticulate algae (of some eight species), which has become well known through the monographic account of Svedelius (1908), it is proposed that Martensia Hering be considered for conservation.

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LITERATURE CITED

Арамson, М. 1763. Familles des plantes 2. [1–18] + 640 + [19–24] pp. Paris. Асакон, J. G. 1841. In historiam algarum symbolae. Linnaea 15: 1–50,

-. 1854. Nya algformer. Öfvers. K. Sv. Vetensk.-Akad. Förhandl. 11(4): 107-111.

. 1872. Bidrag till florideernes systematik. Lunds Univ. Årsskr.

239 pp. Lund.

. 1899. Analecta algologica, contin. 5. Lunds Univ. Arsskr. Afd.

2, 35. 160 pp., 3 pls.
 ARESCHOUG, J. E. 1850. Phycearum, quae in maribus scandinaviae crescunt, enumeratio. Sectio posterior Ulvaceas continens. Nova Acta Reg. Soc. Sci. Upsal., Ser. 2, 14: 385-454, pls. 1-3.
 BONNEMAISON, T. 1822. Essai d'une classification des hydrophites loculées, ou plantes marines articulées qui croissent en France. Jour. Phys., Chimia Hict Not at Arts 04. 138-148 (Mars) 174-203 (Avril).

Chimie, Hist. Nat. et Arts 94: 138-148 (Mars), 174-203 (Avril).

BØRGESEN, F. 1945. Some marine algae from Mauritius III. Rhodophyceae, part 4, Ceramiales. K. Danske Vidensk. Selskab. Biol. Medd. 19(10). 68 pp., 35 figs. Bory de Saint Vincent, J. B. 1823. Conferva. Dict. class. hist. nat. 4: 389-

394. Paris.

-. 1827-1829. Cryptogamia in L. I. Duperrey, Voyage autour du monde, . . . , la Coquille, . . . , 2(1). 301 pp. Paris. —. 1828. Percursaria. Dict. class. hist. nat. 13: 206. Paris.

DAWSON, E. Y. 1945. Notes on Pacific Coast marine algae. III. Madroño 8(3): 93-97, pl. 8.

-. 1946. A guide to the literature and distributions of the marine algae of the Pacific Coast of North America. Mem. S. Calif. Acad. Sci. 3(1): 1-134.

DE TONI, J. 1936. Noterelle di nomenclatura algologica. VII. Primo elenco di Floridee omonime. [8] pp. Published by the author. Brescia. Dory, M. S. 1947. The marine algae of Oregon, part II. Rhodophyta. Far-

lowia 3(2): 159-215, incl. pls. 11-14.

ENDLICHER, S. L. 1843. Mantissa botanica altera . . . , suppl. 3. [6] + 111 pp. Vienna.

GISEKE, P. D. 1792. Caroli a Linné M. D. . . . Praelectiones in ordines nat-urales plantarum. 1+662 pp., 7 tabs., 7 pls., 1 map. Hamburg.

HARVEY, W. H. 1853. Nereis boreali-americana: or, contributions to a history of the marine algae of North America. Part II. Rhodospermae. Smithsonian Contr. Knowledge 5(5): 1-258, pls. 13-36.

_____. 1859. Phycologia australica; . . . , 2. viii + text of unnumbered pages accompanying plates 61–120. London.

-. 1862. The same, ... 4. viii + text of unnumbered pages accompanying plates 181-240. London.

HERING, K. 1841. Diagnoses algarum novarum a cl. Dre. Ferdinand Krauss

in Africa australi lectarum. Ann. and Mag. Nat. Hist. 8(49): 90–92. HOOKER, W. J. 1833. The English flora of Sir James Edward Smith 5: x + 432 pp. London. (Also known as Dr. Hooker's British flora, vol. 2, part 1.)

KJELIMAN, F. R. 1883. The algae of the Arctic Sea. K. Sv. Vetensk.-Akad. Handl. 20(5): 350+[1], 31 pls.
 KYLIN, H. 1924. Studien über die Delesseriaceen. Lunds Univ. Årsskr.

N. F. Avd. 2, 20(6): 111 pp., 80 figs.

-. 1929. Die Delesseriaceen Neu-Seelands. Ibid. 25(2). 15 pp., 12 pls.

-. 1931. Die Florideenordnung Rhodymeniales. Ibid. 27(11). 48 pp., 8 figs., 20 pls. LAMOUROUX, J. V. F. 1809. Observations sur la physiologie des Algues marines,

LINK, H. F. 1820. Epistola . . . de algis aquaticis in genera disponendis scripsit, in C. G. D. Nees von Esenbeck, Horae physicae berolinenses, . . . , No. 1. 8 pp., 1 pl. Bonn.

LINNAEUS, C. 1753. Species plantarum . . . , 1. [xii] + 560 pp. Stockholm. PAPENFUSS, G. F. 1942. Notes on algal nomenclature. I. Pollexfenia, Jean-nerettia and Mesotrema. Proc. Nat. Acad. Sci. 28: 446-451.

. 1944. Notes on algal nomenclature. III. Miscellaneous species of Chlorophyceae, Phaeophyceae and Rhodophyceae. Farlowia 1(3): 337-346.

. 1947. Generic names of algae proposed for conservation. I. Madroño 9(1): 8-17.

RAFINESQUE, C. S. 1836. [1838]. New flora and botany of North America
..., part 4. 112 pp. Philadelphia.
SCHMITZ, F. 1889. Systematische Übersicht der bisher bekannten Gattungen der Florideen. Flora 72: 435-456, pl. 21.
SETCHELL, W. A. and N. L. GARDNER. 1903. Algae of northwestern America.
Ubig. Golif. Bubl. Bot. 1, 166 410, pl. 17-27.

Univ. Calif. Publ. Bot. 1: 165–419, pls. 17–27. Svedelius, N. 1908. Über den Bau und die Entwicklung der Florideengattung Martensia. K. Sv. Vetensk.-Akad. Handl. 43(7). 2+101 pp., 62 figs., 4 pls.

ZANARDINI, J. 1858. Plantarum in mari rubro hucusque collectarum enumeratio. Mem. Inst. Veneto 7: 209–309, pls. 3–14.

A CHANGE IN STATUS OF A MALVASTRUM FROM BAJA CALIFORNIA, MEXICO

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In September, 1929, the late John W. Gillespie and I collected an attractive species of Malvastrum a few miles north of Ensenada, Baja California, Mexico. It was strikingly different from any representative of the genus growing in San Diego County, California, less than one hundred miles to the north. When we returned to Stanford University a description was written, a plate made to illustrate the "new species" and then, fortunately, the description and drawing were laid aside until a thorough check of types in eastern herbaria could be made. The scope of the research problem begun in 1929 had to be changed, and the Malvastrum, growing outside the confines of the Sonoran Desert, was not compared with types until recently. Dr. Reed C. Rollins has kindly permitted me to borrow the type of Asa Gray's Malvastrum marrubioides var. paniculatum. The plant collected in 1929 belongs to the same entity, but for reasons that will be discussed below it seems advisable to elevate the "variety" to specific rank. Accordingly the following new combination is proposed.

Malvastrum paniculatum (Gray) comb. nov. Malvastrum marrubioides var. paniculatum Gray, Proc. Am. Acad. 22: 290. 1887.

An erect or ascending openly branched shrub 1-2.5 m. tall, with stoutish, densely stellate-tomentose branches, the tomentum pale tawny to brownish; petioles 4-10 (or rarely to -15) mm. long, densely tomentose and somewhat scurfy; leaf-blades ovate to pentagonal-ovate, obscurely to distinctly 3-lobed, 1.5-4 cm. broad, 2-5 cm. long, or those on vigorous young shoots 8-10 cm.